

## TITLE OF THE INVENTION

[0001] SELF-MOUNTING AUTOMOBILE WINDOW SCREEN

## CROSS-REFERENCE TO RELATED APPLICATIONS

[0002] This Application claims priority from Canadian Application No. 2,423,706, filed on March 26, 2003.

## STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0003] Not applicable.

## REFERENCE TO A "SEQUENCE LISTING"

[0004] Not applicable.

## BACKGROUND OF THE INVENTION

### FIELD OF THE INVENTION

[0005] The invention belongs to the field of flexible and detachable automobile screens, custom-fitted to particular makes and models of vehicles to provide a temporary barrier and seal around the window opening when the vehicle is not in motion.

### DESCRIPTION OF RELATED ART

[0006] The use of screens in automobile windows, when the vehicle is stationary, has long been known. The purposes of these screens are to provide a selective barrier, allow airflow and yet prevent insects and other debris from entering the automobile. Some of the prior art screens are either permanently mounted on the automobile, mounted externally, or over the entire door of the automobile. Many of these screens have entirely rigid frames. Others may cause permanent damage to the automobile or regular damage to the screen

itself. In US 4,463,790 (issued August 7, 1984 to Clapsaddle), a flexible window screen roll is disclosed. The major disadvantage of such a screen roll is the very limited roll width which determines the dimensions of the window opening. It is impossible, for example, to use the Clapsaddle screen roll when the vehicle window is fully opened.

#### BRIEF SUMMARY OF THE INVENTION

**[0007]** The present invention provides a simple way of mounting a screen into an automobile window channel temporarily.

**[0008]** An object of the invention is to provide a temporary, self-mounting screen to be a flexible selective barrier to the outside environment without permanently attached to the vehicle.

**[0009]** Another object of the invention is to provide an inexpensive and relatively compact and foldable window-mounting screen.

**[0010]** According to the invention, it provides a self-mounting automobile window screen for providing a temporary barrier and seal around the opening of a non-moving vehicle. The screen comprises a flexible mesh screen seamed at a bottom position to an anchoring base and at an upper and side positions to a flexible mounting tube, with the anchoring base and mounting tube together substantially defining the shape of the vehicle window opening. It further comprises a lifting means fastened to the upper position of the mounting tube.

#### BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)

**[0011]** **Figure 1** is a front view of the self-mounting automotive screen of the present invention.

**[0012]** **Figure 1A** is an end view of the self-mounting automotive screen of the present invention in the direction of arrow A-A.

## DETAILED DESCRIPTION OF THE INVENTION

[0013] The mesh of the present invention is seamed to a piece of rubber anchoring base at the bottom, which is custom-fitted to accommodate the window opening inserts into the window channel. The remaining sides of the mesh are attached to a window mounting foam rope or tube, which can be inserted into the remaining window channels with the aid of a plastic wedge.

[0014] A small lift tab is incorporated at the top edge of the screen to provide a convenient means for removing the screen from the window by pulling slowly on the tab to remove the foam rope from the top window channel. The remaining sides will follow. When finished with the screen it can be rolled up. Its flexible nature allows the screen to be put away in a bag for compact storage.

[0015] With reference to Figure 1, it depicts the front view of the mounting screen **10**. The mounting screen **10** comprises of flexible screen **2**, anchoring base **3** with lift tab **4** and window mounting tube **1**. Screen **2** is made of a fine mesh. The sizes of the mesh openings are small enough to prevent passage of insects and debris. The mesh is flexible enough to allow it to be folded for storage without resulting in permanent damage.

[0016] Attached along the upper and side edges of mounting screen **10** is window mounting tube **1**. Mounting tube **1** consists of a strip of material such as plastic or foam rope that fits into the side and upper window channels for securement of mounting screen **10**. Flexible screen **2** is seamed by conventional means to mounting tube **1**. Mounting tube **1** should be rigid enough to extend to the full dimension of the window opening but yet flexible enough to enable it to be foldable for storage.

[0017] Anchoring base **3** of mounting screen **10** is made of pliable rubber or other heavy but flexible material that fits into the bottom channel of the window opening. Screen **2** is seamed to anchoring base **3** by conventional methods.

Preferably, the bottom of base **3** is concave in shape in order to rest on the window frame securely (see Figure 1A). More preferably, a rib **5** is provided in the center of the concave portion for snugly engaging the anchoring base **3** inside the opening of the window frames.

**[0018]** A lifting means is fastened to the upper edge of mounting tube **1** to enable the user to remove the mounting screen **10** from the window with ease. Preferably, the lifting means is a lift tab **4** as shown in Figure 1. The lifting means, while preferably a tab, could take many forms, such as a loop of material, an indentation or opening in the upper portion of the mounting tube, a cord or string that can be pulled to lift the tube, or any other construction providing a similar function.

**[0019]** There is a chain reaction when mounting tube **1** is demounted from the window channel as the user pulls lift tab **4**. Lift tab **4** is made of similar material as anchoring base **3** or can be made from any suitable resilient materials and should be sufficiently large enough for easy grasping by the user.

**[0020]** As it has been described, the screen of the present invention is ideally suited for window openings in vehicles, which have a window channel. The screen is temporary and leaves no damage to the vehicle. The attachment is only to be used when the vehicle is stationary. When not in use, the mounting screen can be rolled up for easy storage.

**[0021]** It is to be noted that the preferred embodiment illustrated herein shows an “ideal” window shape of a typical vehicle. The invention can be configured to custom-fit specific vehicle openings.

**[0022]** It is to be understood that the embodiments and variations shown and described herein are merely illustrative of the principles of this invention and that various modifications may be implemented by those skilled in the art without departing from the scope and spirit of the invention.